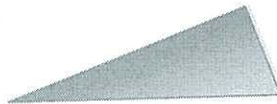
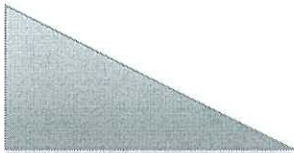


Name: _____ TP: _____

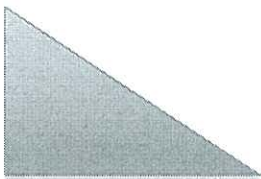
Failure to show work on all problems, watch video, or use complete sentences will result in a LaSalle.Watch the following video to answer the following questions: <http://tinyurl.com/GEOMCP44>

- 1) Why does Mr. Khan say Pythagorean is a backbone in mathematics?
- 2) What is the only kind of triangle that the Pythagorean Theorem works for?
- 3) How many sides of the triangle do you have to know in order to use the Pythagorean Theorem?
- 4) Label the hypotenuse of the following triangles (assume all are right triangles):

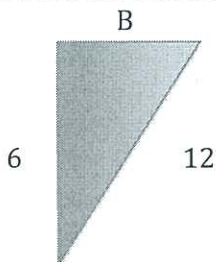


- 5) What side is always the hypotenuse?

- 7) What is the formula for Pythagorean Theorem? (label the sides of the triangle below with the letters in the formula).



- 9) Finish the following problem.

**THERE IS NO BACKSIDE TODAY BECAUSE YOU HAVE TEST CORRECTIONS. HAPPY CORRECTING!****STAY READY.**

Name: _____ TP: _____

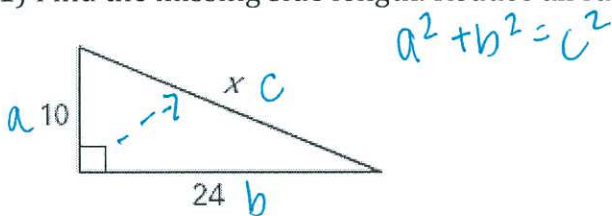
Failure to show work on all problems, watch the video, or use complete sentences will result in a LaSalle.

Watch the following video to answer the questions below: <http://tinyurl.com/GEOMCP45>

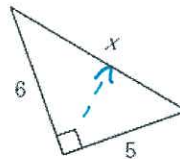
- 1) The distance formula is just the _____.
- 2) What is the distance formula?
- 3) Does it matter what order you write your x_1 and x_2 or y_1 and y_2 value? Why or why not?
- 4) Find the distance between $(-6, -4)$ and $(1, 7)$.

$x_1 \ y_1 \quad x_2 \ y_2$

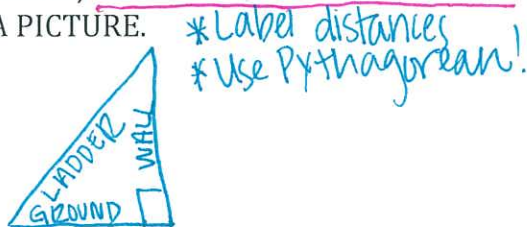
- 1) Find the missing side length. Reduce all radicals.



- 2) Find the missing side length.



- 3) The top of a ladder rests against a wall, 13 feet above the ground. The base of the ladder is 8 feet away from the wall. What is the length of the ladder, rounded to the nearest whole foot? DRAW A PICTURE.



- 4) Darnell wants to make a wheel chair ramp from his driveway to the top of his front porch. His porch is 1 foot high. The distance from his porch to his driveway is 16 feet. How long will the incline be? DRAW A PICTURE.

You should approach each problem as an exploration. Problem-solving requires persistence as much as it requires ingenuity. When you get stuck, or solve a problem incorrectly, back up and start over. Keep in mind that you're probably not the only one who is stuck, and that may even include your teacher. **If you have taken the time to think about a problem, you should bring to class a written record of your efforts, not just a blank space in your notebook.** The methods that you use to solve a problem, the corrections that you make in your approach, the means by which you test the validity of your solutions, and your ability to communicate ideas are just as important as getting the correct answer.

Solve all of the problems on a piece of paper **STAPLED TO YOUR HOMEWORK**. If you are stuck and cannot answer a question, write at least three complete sentences about the problem and what you do know. Use at least one of the sentence starters below:

- a. Even though I am stuck, I do know...and I think I should...because...
- b. I am stuck because I do not know what ____ means. I think it means...so I tried...
- c. I got this answer but I think it is wrong because...

Remember that you can always use old notes, a dictionary, math textbook, and/or look up topics online!

1) Chase began a number puzzle with the words "Pick a number, add 7 to it, and double the result." Chase meant to say, "Pick a number, double it, and add 7 to the result." Are these two instructions equivalent?

- a. Identify whether the expressions are equivalent.
- b. Provide proof in the form of a table that justifies your answer to the prior question.

2) The Mount Major hike starts in Alton Bay, 716 feet above sea level. The summit is 1796 feet above sea level, and it takes about 45 minutes for a typical hiker to make the climb. Find the rate at which this hiker gains altitude, in feet per minute.

- a. Draw a picture of the Mount Major hike, labeling all distances.
- b. Find the rate in FEET per MINUTE (represent as a fraction).

3) The line through (1, 6) and (0, 3) passes through every quadrant except one. Which one (*you must show your work on graph paper*)?

HW 45

① Pick a #, add 7 to it, & double result Pick a #, double it, & add 7 to the result.

-2 $-2 + 7 = \square \cdot 2 = \square$

$-2(2) = \square + 7 = \square$

0

2

4

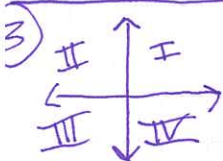
a) Are they equal? Why or why not?

② 1796 ft.



③ Rate : $\frac{\text{FEET}}{\text{MINUTES}}$

* How many feet is the climb? BE CAREFUL!
* A ratio is a fraction!
Write your answer in a complete sentence.

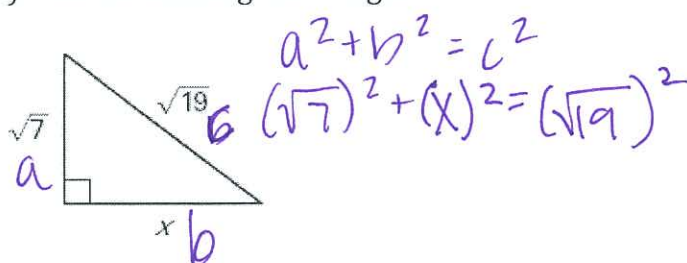


→ This is a graph w/ the quadrants labeled!
Graph your two points in your own graph & respond to the question.

Name: _____ TP: _____

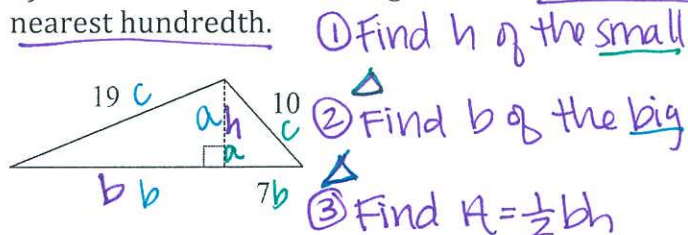
Failure to show work on all problems or use complete sentences will result in a LaSalle.

1) Find the missing side length.

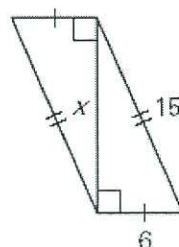


$(\sqrt{\#})^2 = \#$! The root & 2nd power cancel.

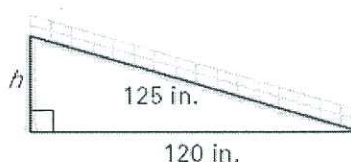
3) Find the area of the triangle below. Round to the nearest hundredth.



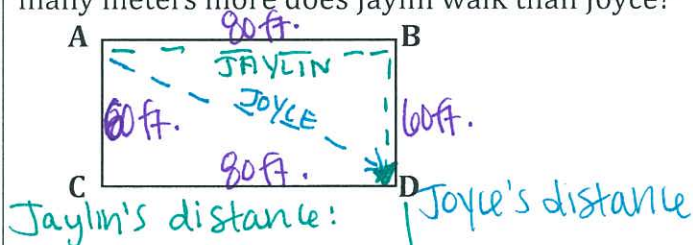
2) Find the missing side length.



\cong & 1 \rightarrow means the sides are congruent. Label them!

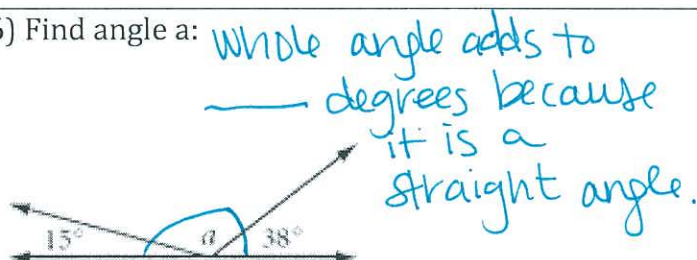
 4) A shipping dock has a mobile ramp that is used to help load and unload cargo from trucks. The ramp is 125 inches long and has a base that is 120 inches long. What is the height h of the ramp?


5) A rectangular field shown below is 60 feet wide and 80 feet long. Jaylin and Joyce are at point A. Jaylin walks to point D by walking along the edge of the field through point B. Joyce walks to point D by walking diagonally across the field. About how many meters more does Jaylin walk than Joyce?



Jaylin - Joyce =

6) Find angle a:



7) If possible, use the Law of Syllogism to re-write the following statement:

If you work with oil paints, then you are a painter. If you are a painter, then you are an artist.

(get rid of the overlap / common link!)

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1) If the coordinates of a square that is inscribed in a circle are $(-3,6)$, $(5,6)$, $(-3,-2)$, and $(5,-2)$; what is the area of the circle?

2) What is the equation of the line perpendicular to $x = 4$ and passes through the point $(10, 3)$?

3) What is the solution to the following three lines?

$$2x + y = 4$$

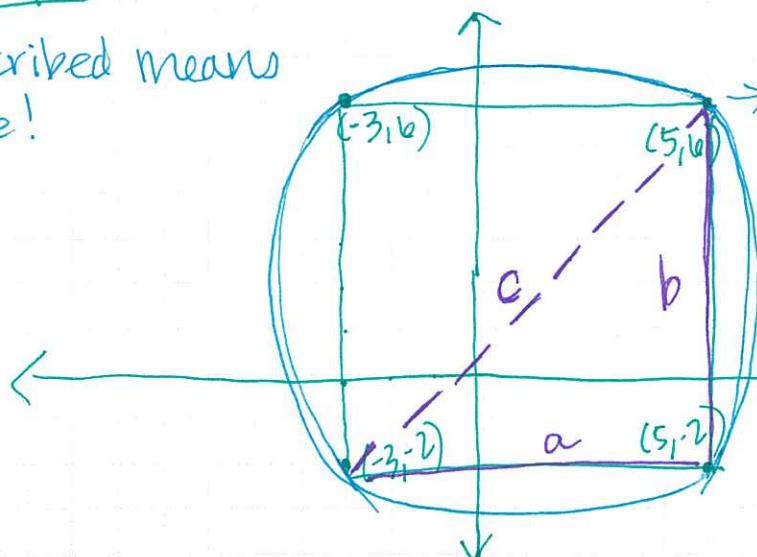
$$y = 4x + 10$$

$$y = 6$$

STAY READY.

HW4le

① *Inscribed means Inside!



→ What is the formula for area of a circle?

$$A = \underline{\hspace{2cm}}$$

*What do we need to find in order to solve for area?

→ Use Pythagorean Theorem to solve for c , which is the diameter of the circle.

$$b = |6 - (-2)| = \underline{\hspace{2cm}}$$

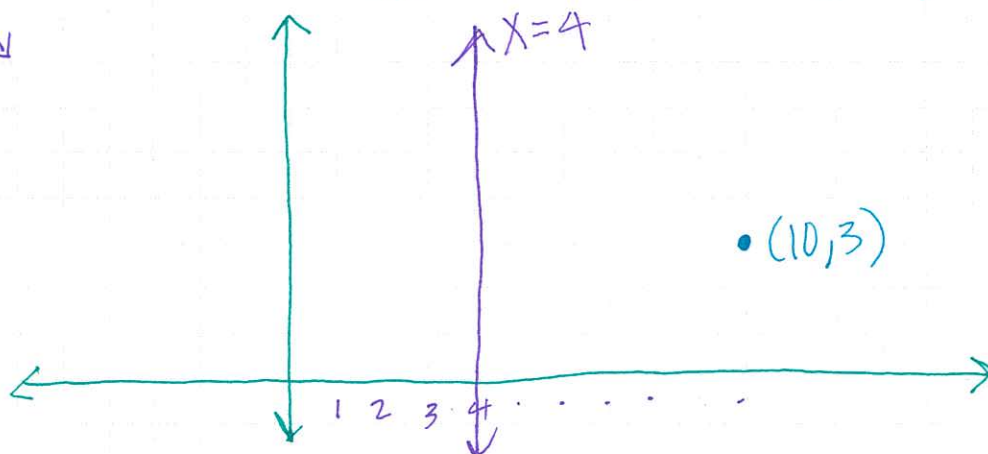
$$a^2 + b^2 = c^2$$

$$a = |-3 - (5)| = \underline{\hspace{2cm}}$$

Finally, c is the diameter. Now, find the radius:

② perpendicular means opposite reciprocal (of slope).

$$x=4 \rightarrow$$



→ Complete the line through $(10, 3)$ so that is perpendicular to $x=4$ ($\leftarrow \overleftrightarrow{\hspace{1cm}} \rightarrow$).

→ Write the equation:

(Hint: The equation will NOT have an x because it is a horizontal line... $y =$ (a number))

③ HW4e continued

A "solution" is a coordinate (point) that all three equations share.

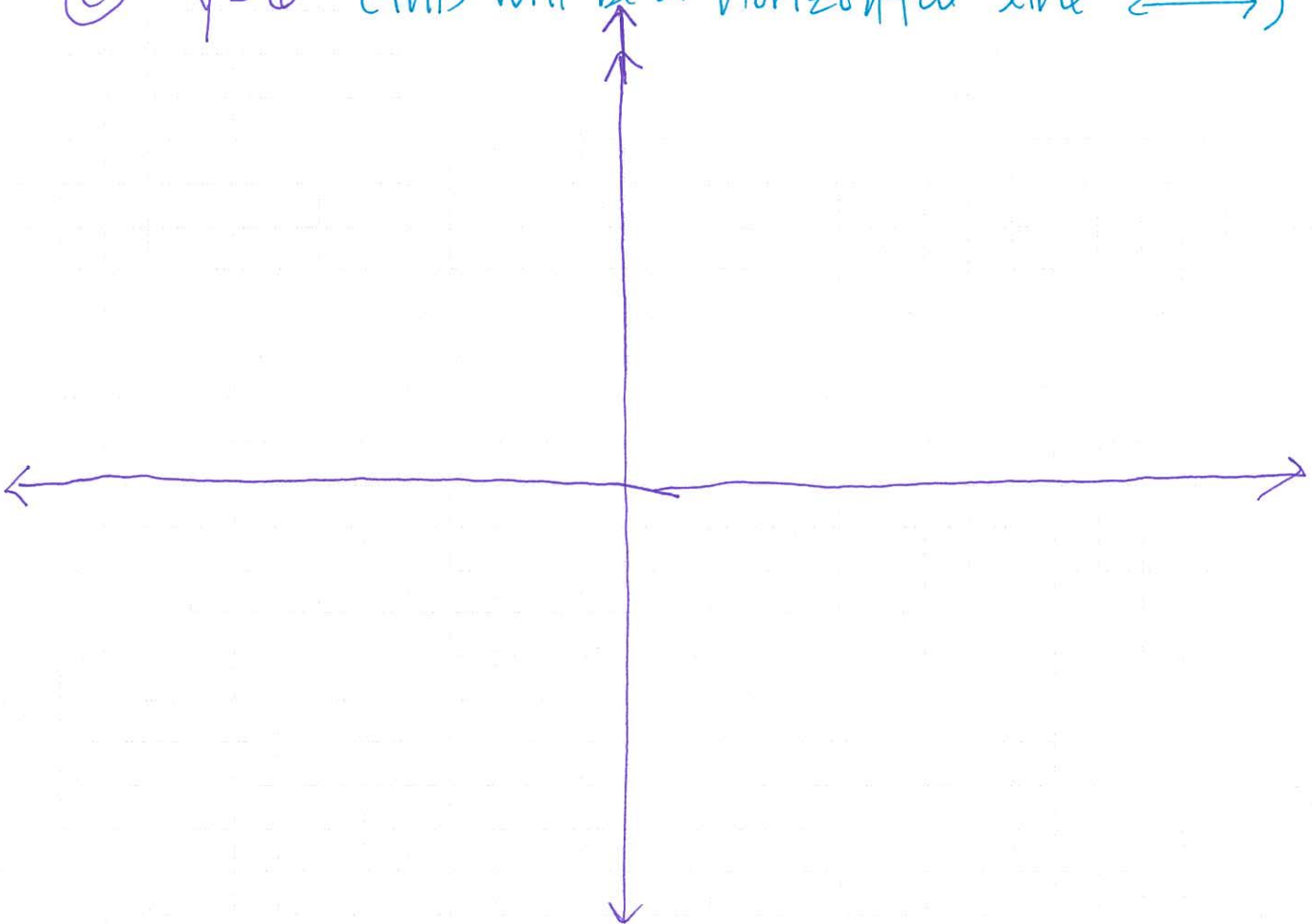
→ Solve all equations for y .

① $2x + y = 4 - 2x$
 $- 2x$

$y = -2x + 4$ → y -intercept
↑ slope

② $y = 4x + 10$ → y -intercept
↑ slope

③ $y = 6$ (this will be a horizontal line \longleftrightarrow)



*MAKE SURE you graph correctly or you will end up w/ an incorrect solution.

SOLUTION (where they cross): (,)

Name: _____ TP: _____

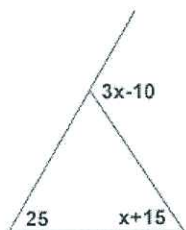
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1) What is the Exterior Angle Theorem?

2) What is an exterior angle?

3) What are remote interior angles?

4)



*ADD interior angles & set equal to the exterior angle.

Set up the exterior angle theorem for the image above and solve.

1) Write the distance formula:

2) Find the distance from C (-10, 12) and D (4, -14) rounded to the nearest hundredth.

3) Find the distance between P(-16, 20) and R(7, 11) rounded to the nearest tenth.

4) The endpoints of FM are F(10, -21) and M(11, -3). The endpoints of AC are A(-5, 12) and C(3,1). What is the approximate difference in the lengths of the two segments? Round the distance of the segments to the nearest whole.

*Find \overline{FM} & \overline{AC} .
THEN, find the difference → 3 STEPS!

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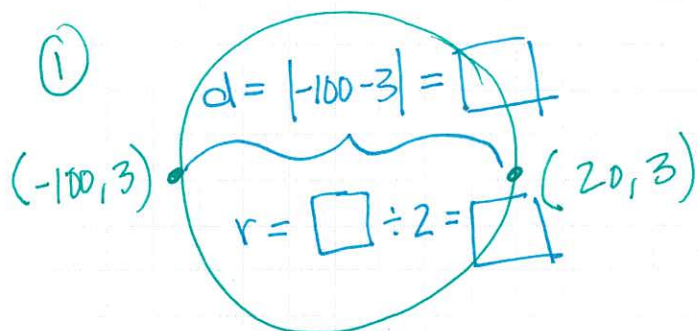
1) The diameter of a circle extends from $(-100,3)$ to $(20,3)$. If the area of this circle is the same as a square, what is a side length of that square?

2) Before you are able to take a bite of your new chocolate bar, a friend comes along and takes $\frac{1}{4}$ of the bar. Then another friend comes along and you give this person $\frac{1}{3}$ of what you have left. Make a diagram that shows the part of the bar left for you to eat.

3) Jess takes a board that is 50 inches long and cuts it into two pieces, one of which is 16 inches longer than the other. How long is each piece?

STAY READY.

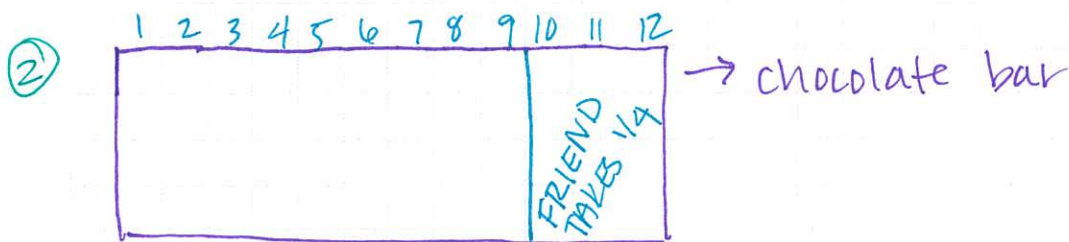
HW47



$$A_{\text{circle}} = A_{\text{square}}$$

$$\pi r^2 = s^2$$

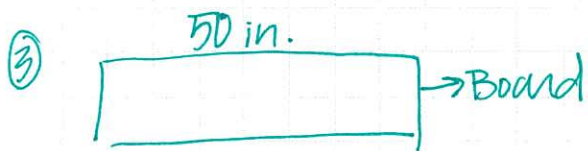
- ① Find r by completing blue steps.
- ② Plug r into green area equation above.
- ③ Solve for s ! Remember, the opposite of $s^2 = \sqrt{s^2}$



① Friend takes $\frac{1}{4}$
 $12 \div 4 = 3$

② Give another friend
 $\frac{1}{3}$ of what is left.
 $9 \div [] = []$

③ Shade in what you have left to eat.



→ SPLIT into two pieces

one piece
 \times

(+)
 (+)

16 in. longer than other piece. (= 50)

 (= 50)
 Write this as an expression with x .

*SOLVE!

length of short piece: _____

length of long piece: _____

